



Convention on the Conservation of Migratory Species of Wild Animals

Secretariat provided by the United Nations Environment Programme



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NATIONAL REPORTS

Introduction

1. The main objective of national reporting is to provide information on measures taken for the implementation of the Convention and the effectiveness of these measures. Article VI of the Convention requires Parties, which are Range States for migratory species listed in Appendix I or Appendix II, to inform the Conference of the Parties through the Secretariat, at least six months prior to each ordinary meeting of the Conference, on measures that they are taking to implement the provisions of this Convention for these species. A list of the Range States of migratory species listed in Appendices I and II is to be kept up to date by the Secretariat using information it has received from the Parties.

2. Resolution 8.24 of the CMS COP8 on “National Reports for the Eight and Ninth Meetings of the Conference of the Parties” stressed the important role of national reports as vital indicators of the implementation of the Convention and made a number of recommendations on availability, submission process and format of the national reports. Progress made so far by the Secretariat in the implementation of this resolution is reported below.

Format for Party Reports

3. At COP7 Parties commended the development of the new format for Party reports, and recommended that after undertaking some necessary fine-tuning based on the lessons learned from the voluntary use of the format by many Parties in the production of their 2002 reports, the final version of the format be presented to the 26th Meeting of the CMS Standing Committee for final approval and formal adoption (Resolution 7.8). The new format was used by Parties for producing their national reports for COP8.

4. Reports received are currently available on the CMS website at: http://www.cms.int/documents/national_reports.htm

5. In response to Resolution 8.24 an analysis of the reports received by 31 December 2005 was carried out and the results are available for information (and to facilitate policy formation) at http://www.cms.int/documents/national_reports.htm

On-line Reporting

6. Resolution 8.24 also requests the Secretariat to adapt the national report format for reports to the ninth meeting of the Conference of the Parties to facilitate on-line reporting on the implementation of the CMS Strategic Plan 2006-11. This format has to be agreed by the Standing Committee in consultation with the Scientific Council.

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7. In resolution 8.11 the CMS COP further invited the Executive Secretary, in collaboration with the Biodiversity Liaison Group (BLG) and UNEP, to advance work on the harmonization of reporting both within the UNEP/CMS Family of Agreements and between relevant Conventions. The purpose of on-line reporting is to support the CMS Family and other decision makers in the dissemination and sharing of information concerning migratory species. It would also improve the quality of the information, including maps showing distribution of migratory species and ecosystems; facilitate easy access to the information available within CMS and its Agreements; enable specialist's work on several topics simultaneously and minimize possible overlap in the questionnaire format.

8. To this end, UNEP/CMS and its daughter UNEP Agreements on African Eurasian Waterbirds (AEWA) and European Bats (EUROBATS) have proposed to establish the first-ever global System of On-line National Reporting ("SONAR", see Annex) for the CMS Family of Multilateral Environment Agreements, to be introduced in 2008/9.

9. SONAR 2010 is meant to be an on-line reporting facility which provides user-friendly, public access to reliable and current information on migratory species across the CMS Family, and streamlines reporting obligations of Parties in order to better assess the status of implementation of the Convention and related agreements.

10. SONAR will also help monitor progress in achieving the 2010 target for biodiversity established by the World Summit on Sustainable Development (WSSD) and the Convention on Biological Diversity (CBD), and endorsed by CMS Parties. The project proposal was submitted to UNEP/DEC for funding and included in the list of projects circulated to CMS Parties and presented at the meeting on "CMS on the move to 2010: Priorities in implementing the programme of work 2007-2008" held in Bonn on 27 September 2006, and also contained in document CMS/StC31/Inf.6.

11. CMS/UNEP is working on a draft on-line Party Report format. Reporting would be kept concise, focused, streamlined to avoid duplication and be outcome-oriented for the implementation of conservation measures.

12. Benefits to Parties of the on-line system might include:

- i. reduced costs of reporting requirements of treaties through co-ordinated schedules and standards;
- ii. improvement of information feedback from Secretariats and comparability with other countries; and
- iii. increased ability to develop and use clearing house mechanisms and integrated indicators of sustainability.

Action requested:

The Standing Committee is invited to:

- Stress the importance of the on-line reporting system to increase efficiency and harmonization of the information provided by Parties; and
- hence, encourage Parties to provide financial support to the establishment of an on-line reporting system.

Annex
Project proposal
(English only)

SONAR 2010

Catalysing MEA harmonization: UNEP/CMS Family project to develop a System of Online National Reporting (SONAR) to monitor implementation of the Convention and its Agreements and the achievement of the 2010 target



In cooperation with



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1. Summary Statement

The UNEP Convention on Migratory Species (CMS) and its daughter UNEP Agreements on African Eurasian Waterbirds (AEWA) and European Bats (EUROBATS) propose to establish the first-ever global System of Online National Reporting (SONAR) for a family of Multilateral Environment Agreements, to be introduced in 2008. This project will include the ten existing CMS Memoranda of Understanding.

A modern, IT-based system facilitating collection and analysis of information from each party is an essential tool whereby the Secretariat and the Conference of the Parties can evaluate implementation of the Convention. Information on National Reports enables the Secretariat to identify common problems encountered by Parties, lessons learned that can be made more widely available, or priority issues that need to be addressed by the Convention. Existing reporting mechanisms within CMS and its Agreements are outdated, cumbersome and costly for both Parties and the Secretariat.

SONAR 2010, will be a on-line reporting facility which provides user-friendly, public access to reliable and current information on migratory species across the CMS Family, and streamlines reporting obligations of Parties in order to better assess the status of implementation of the Convention and related agreements. SONAR will also help monitor progress in achieving the 2010 target for biodiversity established by WSSD and CBD, and endorsed by CMS Parties.

SONAR 2010 will be designed in a way to enable exchanges of data amongst the family, Parties and the wider public, while at the same time enabling contributors to retain ownership and credit for their work. SONAR 2010 will respond to the need for more systematic reporting of information relevant to biodiversity conservation and sustainable use.

SONAR 2010 will allow:

- Improved information quality, consistency and transparency;
- Improved efficiency of information management and use for the Secretariats, Parties and the wider public;
- Reduced cost of information systems development for Secretariats (shared costs) and reporting costs for Parties;
- Improved linkages and sharing of information with international MEAs, environmental monitoring agencies, major data custodians, and regional treaties and the wider public on CMS Family of Agreements;
- Improved image and credibility of reporting mechanisms of Secretariats;
- Reduced overlapping in the questionnaire format of different agreements;
- Reduced burden on national governments;
- More efficient and transparent information management for the Secretariats, sharing common information wherever possible;
- Increased ability to develop and use integrated indicators;
- Removing or reducing the need for separate reporting mechanisms;
- Easier collection of information and assembly of reports on line by the Secretariat and other users, including UNEP;
- Sharing of the software and lessons learned from the project would also be made available through UNEP/DEC to all other MEAs who may wish to establish autonomous or integrated SONARs.

A detailed budget and timetable are contained in ANNEX I and ANNEX II respectively.

2. Information and communication mandate to further the objectives of the Convention, its Agreements and the Strategic Plan to fulfil harmonization needs

One of the main mandates of the Conference of the Parties is the review of the implementation of the Convention, in particular the review and assessment of the conservation status of migratory species and of progress made towards their conservation as well as review of progress made under specific Agreements. Based on information received, reviewed and assessed, the COP is mandated to make recommendations to the Parties for improving conservation status and (see Article VII, paragraph 5 (a) (b) and (e)).

To this end, the Secretariat is requested to obtain, from any appropriate source, reports and other information which will further the objectives and implementation of the Convention and to arrange for the appropriate dissemination of these information. Similar requirements are contained in the provisions of Agreements such as AEWA (see Article VII (e)) and EUROBATS (see Article VI).

As part of this information gathering function, under the Convention and Agreements, Parties are requested to inform the COP, through the Secretariat, at least six months prior to each ordinary meeting of the Conference, on measures they are taking to implement the provisions of the Convention. This “National Reporting” process is indeed a key instrument to enable the COP to assess the overall status of the Convention. It can assist the dissemination of lessons learned: allow the COP to formulate guidance to Parties and subsidiary bodies and the Secretariat, and, most importantly, identify priorities for action to conserve migratory species (for a short overview of the National Report Format see Annex III).

The number of CMS Memoranda of Understanding (MoU) has been growing in recent years as Range States increasingly come to appreciate their usefulness as specialised fora for expeditiously coordinating conservation measures across a migratory range for a number of different migratory species including birds, terrestrial and marine mammals and marine turtles. Signatories to CMS MoUs can be either CMS Parties or non-Parties. The MoUs provide for regular meetings of their signatories at which the CMS Secretariat presents an over report describing the status of implementation of an accompanying Action Plan. The conservation status of the species targeted is typically assessed.

The overview reports draw from all information available to the Secretariat including country reports and other sources. Country reports are based on outcome oriented reporting formats developed by CMS. Because the number of MoUs will grow in future years as a key operational tool to support the implementation of the Convention, it will be imperative to collect information in the most efficient way possible keeping in mind the need to avoid duplication of effort. On-line national reporting and an integrated projects database will provide the basis to collect information from governmental and non-governmental sources.

The first meeting of the signatories to the Great Bustard MoU (2004) encouraged the Secretariat to explore the on-line reporting option in time for the second meeting in 2007. Report formats have been or are being prepared for the Aquatic Warbler, Saiga and Siberian Crane MoUs, and will be prepared in anticipation of future meetings of the African Atlantic Coast Marine Turtles, Bukhara Deer, Slender-billed Curlew, Pacific Islands Cetaceans and West African Elephant MoUs.

In addition to the mandate in the Convention and its Agreements other reporting and assessment needs have arisen in light of recent development within MEAs and biodiversity related forums. These includes monitoring of the achievement of the WSSD/CBD target of significantly reducing

biodiversity losses by that 2010. In this context, the eighth meeting of the CMS COP decided, in the framework of the CMS Strategic Plan, on actions to contribute to the 2010 target, and to report to the next COP (resolution 8.7 on Contribution of CMS in Achieving the 2010 Target).

3. The current reporting system: difficulties and pitfalls

Reporting under a plethora of MEAs and other relevant processes (such for instance CBD and CSD) is time-consuming and costly exercise, for developed and developing countries alike. Reporting requires financial and human resources, diverse expertise, organization and delegation of tasks that is difficult to activate for a number of different processes during short intersessional intervals between meetings of governing bodies of different Conventions and processes. The CMS family's experience on national reporting does not differ substantially from those of other processes and Conventions: delays, requests for assistance, missed deadlines and a high percentage of non-compliance are quite usual.

Systematic reporting of information relevant to biodiversity conservation and sustainable use requires a well organised institutional set-up and sophisticated systems for data and information management and dissemination. However, most countries face a serious lack of resources to manage large amounts of data in a manner which meets modern standards. Moreover, reporting systems provided by Convention Secretariats are not facilitating the job. In many cases, the format for reporting is perceived as unnecessarily complex, repetitive and not target-oriented. In the case of CMS Family overlaps are frequent, although they should be avoidable, given the general character of reporting for the Convention and the focus on some particular species under the Agreements.

In 2005, in the run-up to the eighth Conference of the Parties, only 53% of Parties responded within the deadline established by the Convention. This turnout, although below achievement of COP-7, could be considered quite satisfactory, if compared to percentages recorded in other processes, registering often a maximum of 30% of responses.

Delays in the submission of national reports by Parties may pose difficulties to the assessment of the implementation of the Convention. The greater the number of countries that fail to report, the greater the likelihood that the synthesis will be unreliable or distorted, thereby failing to provide the COP with a secure basis on which to make its decisions. Indeed, failure to report prevents the meeting of the Conference of the Parties from having a timely access to an adequate reflection of efforts made and lessons learned by Parties in implementing the Convention. This might also prevent decisions on priority actions from being accurate and based on real needs and requests from Parties. Moreover, in the context of the 2010 target, the lack of sufficient information from Parties reduces the possibility to accurately measure improvements in the attainment of the goal.

The accuracy and relevance of communication to Parties, other organizations and the general public on the conservation status of migratory species in different countries and regions is also reduced by the current standard of national reports.

At the country level,, the process of National reporting also assists the individual country to monitor the status of implementation of the commitments it has taken on as a Party. It can assist the Party to identify those commitments that are being successfully met, those that have not been implemented, and constraints to implementation. Failure in preparing such a document can also hinder effective implementation of the Convention at the national level.

4. Mandate and recommendations for an improved system

UNEP/WCMC assisted the CMS Secretariat in analyzing the National reports submitted for the eighth meeting of the Conference of the Parties in 2005. A short analysis and assessment of Parties solicitude in responding and reports produced since COP-2 is contained in document UNEP/CMS/Conf.8.5, available on CMS website. In order to overcome part of the problems described above, the report recognized a number of improvements, including :

- Provision of formats with pre-filled information, which seems to be achieving the objective of encouraging and facilitating the total number of reports produced,
- Enabling Parties to provide their reports on line and thus on an ongoing basis, rather than for a specific deadline, which may further facilitate the reporting process and keep the information available up-to-date;

In response to the suggestions contained in the above report, the COP requested the Secretariat to adapt the national report format to be submitted to the ninth meeting of the COP to ensure Contracting Parties are able to report on-line on the implementation of the measures set out in the Strategic Plan for 2006-11.

It was also requested that this format should seek, via the framework of the Biodiversity Liaison Group (BLG), and in consultation with UNEP/WCMS, to advance harmonization of reporting with other international biodiversity agreements through the development of common reporting modules (Resolution 8.24 on National Reports for the Eighth and Ninth Meetings of the Conference of the Parties).

While considering cooperation with other organizations, Parties also recommended that CMS in collaboration with the BLG and UNEP, should advance the harmonization of reporting both within the UNEP-CMS family of Agreements and between relevant conventions (Resolution 8.11 on Cooperation with other conventions).

Similarly, requests for harmonization and on-line reporting were made by Parties to CMS related Agreements. For instance AEWA resolution 3.5 on Development of an online National Report Format adopted at the last meeting of the Meeting of the Parties in October 2005 instructed the Agreement Secretariat, in close cooperation with the Technical Committee and the CMS Secretariat, to develop an online national report format to be submitted for approval to MOP4. According to the request, the format should seek to advance harmonization of reporting with other international biodiversity agreements through the development of common reporting modules.

CMS and Agreements Secretariats are already investigating the scope for harmonizing reporting procedures by making use of common formats and datasets.

5. Objectives, advantages and requirements of a joint on-line reporting system

The on-line reporting should be an important opportunity for harmonization and collaboration between the CMS and Agreement, thus reinforcing their common family identity and mandates.

SONAR 2010 presents indeed two main features that together, could greatly enhanced effectiveness of reporting within the CMS family: 1) it will be a 100% on-line facility; 2) it will harmonize, interconnect and integrate information of CMS Family Agreements.

In particular, below are listed advantages and improvements to be brought about by the **on-line reporting**.

- Improved information quality, consistency and transparency;
- Creation of a user-friendly public access to reliable and up-to-date information on migratory species, the implementation of the Convention and Agreements and the achievement of 2010 targets;
- Creation of global live and up-to-date information to facilitate preparation of national reports and subsequent analysis;
- Parallel submission of information from governmental and non-governmental sources;
- Continuous submission of information from Parties, at their discretion, or at prescribed intervals as a minimum requirement
- Reduced reporting costs to Governments;
- Improved efficiency in national information;
- Improved efficiency of information management and use for the Secretariats
- Reduced cost of information systems' development and management for Secretariats (shared costs)
- Improved linkages with international environmental monitoring agencies, major data custodians, and regional treaties in particular information on migratory species and habitat conservation could also be provided in parallel by (selected) partner bodies e.g. UNEP Regional Offices, Regional Seas Agreements, NGOs, IUCN and other MEA s as part of a projects database platform
- Improved image and credibility of reporting mechanisms of Secretariats.

The main advantages of **harmonization** of reporting will include the following:

- Outcome oriented information could be collected in the most efficient way possible keeping in mind the need to avoid duplication of effort (this is relevant particularly because the number of regional species Agreements under Article IV of the Convention binding or non-binding) is set to grow by 100% in the next 3 years years as a key operational tool to support the implementation of the Convention);
- Minimization of overlapping in the questionnaire format;
- Minimization of the burden on national governments;
- Governments will be allowed to report on required data only once, and only have to provide information which is directly relevant and necessary to implementation of a specific agreement
- CMS family Secretariats could be more efficient and transparent in information management, sharing common information wherever possible;
- Information systems will be more in harmony with and facilitate the information management regimes of national governments;
- Increased ability to develop and use integrated indicators;
- Single information modules can be submitted by Parties on African-Eurasian Waterbirds and European Bats and the Signatories to the nine existing Memoranda of Understanding to meet the needs of CMS, AEWA, EUROBATS, and the specialized MoU fora removing the need for separate reporting mechanisms;
- All information submitted will be on a readily comparable basis, from which reports at global, regional or taxonomic level can be easily assembled on line by the Secretariat and other users, including UNEP;
- Further harmonization and streamlining of reporting requirements under CMS and its Agreements would be achieved in a second phase of the project in which three CMS Agreements – UNEP/ASCOBANS, ACCOBAMS and ACAP would be invited to join the system. The existing stand-alone online system at UNEP/IOSEA could also be integrated at this stage;
- Information from SONAR could also be made available in whole or part to partner bodies and the wider public, thus facilitating knowledge development and awareness of the CMS Family of Conventions;

- The software and lessons learned from the project would also be made available through UNEP/DEC to all other MEAs who may wish to establish autonomous or integrated SONARs. (e.g. links and model for UNEP/WCMS harmonization of reporting)

Requirements

To achieve these principles an overall harmonised information systems infrastructure is required, which meets the needs of all Secretariats of Agreements, and national governments. Components of such an infrastructure would be:

- a harmonised high level data model covering all the related treaties and programmes
- standards for data and guidelines for national reporting
- synchronised reporting schedules
- agreed information interchange and sharing modalities
- compatible technology for information management.

6. A pioneer model: Lessons learned in the development of the IOSEA Online Reporting Facility

The IOSEA reporting system or Online Reporting Facility (ORF) is recognized as one of the most advanced of any MEA. It is one component of a dynamic, information-rich website that incorporates a high degree of customization and automation in order to simplify daily maintenance by secretariat staff.

The ORF developed in the second half of 2005 is the second generation of a prototype initially launched in 2003-2004. Basic features include:

- Password access for users to assure basic security of data;
- Ability for users to work on their report online “behind the scenes” until they are ready to post it to the live site;
- Ability for Secretariat to monitor activity 24/7 anywhere in the world (ie receive real time notification of who has updated their report and in what way);
- Secretariat has direct access to reports to enable editing behind the scenes anytime, anywhere; and control over the posting of reports to the live site
- Built-in analytical tools to generate statistics on responses to the 80+ questions in the report
- Online evaluation system that allows the Secretariat to *objectively* score each response of every Signatory State; and generate instantaneously a comparative matrix (scorecard) across each of the 24 programmes of work under the IOSEA MoU.

Lessons learned from the experience of developing the IOSEA system will be valuable in developing SONAR. A list is provided in annex IV.

The evaluation system that IOSEA has developed gives Signatories a comprehensive assessment of all of the responses given in their reports, which they can refer to and see how their reporting (and/or implementation) could be improved. This is one of the most valuable aspects of the IOSEA system, which has just been put into practice at the Fourth Meeting of Signatory States (March 2006).

7. Phases and agreements to be integrated in the SONAR 2010

Phase I (2006-2008)

1. UNEP/CMS, Convention on Migratory Species of Wild Animals

2. **UNEP/AEWA**, African-Eurasian Waterbirds Agreement
3. **UNEP/EUROBATS**, Agreement on the Conservation of Populations of European Bats
4. Memoranda of Understanding: **African Atlantic Marine Turtles; Aquatic Warbler; Bukhara Deer; Great Bustard; Saiga, Siberian Crane; West African Elephants;**

Phase II (2008-2010)

5. **UNEP/ASCOBANS**, Agreement on the Conservation of Small Cetaceans in the Baltic and North Seas.
6. **ACCOBAMS**, Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and Contiguous Atlantic Area.
7. **CMS/IOSEA**, Marine Turtle MoU Secretariat, c/o UNEP Regional Office for Asia and the Pacific.
Memoranda of Understanding: **Pacific Cetaceans; Slender-billed Curlew**

8. Funding and contractors

Project expenditure to be funded by earmarked grants from donors, including inter-governmental organizations and Parties. Contributions in kind from the 3 Secretariats.

Competitive tender is essential for the actual design and development. UNEP/WCMC would be contracted separately as the **project manager** on behalf of CMS Family.

ANNEX I: Budget 2006-2008

Type of activity	Description of activity	Estimated Cost (Euro)	Comments
Preparation of new format and on line adaptation (CMS)			
1. Staff	Consultant/guidelines	30,000	Contractor for on-line adaptation.
2. Staff	Creation of webpages	10,000	New webpages and software needed for
3. Techn.	Interactive system-software	3,000	Interactive nature of service
4. Staff	Interactive system/training	2,000	CMS should be able to operate system
Inclusion of other Agreements			
5. Staff	Other guidelines on line	25,000	Creation of on line system for Agreements
Harmonization of family reporting			
6. Staff	Fine tuning and harmonization	15,000	Contractor to link parallel on –line systems/integration
Maintenance and analysis			
7. Staff	Regular maintenance	10,000	5,000 per year
8. Staff	Analysis of information	20,000	Preparation of COP documents
9. Out-reach	Publication of final analysis/status	15,000	To be distributed to Parties Agencies -meetings
TOTAL		130,000	

ANNEX II: Timetable

Early 2007	By mid 2007	By end of 2007	By Jan. 2008	Jan-March	Summer 2008	COP and MOPs
Online reporting format completed						
	Format on line					
		Agreements report on line				
			Harmonization integration of reporting			
				Submissions of Parties		
					Analysis of reports	
						Distribution of reports

ANNEX III: Reporting template

In the latter part of 2001, the Secretariat worked with UNEP-WCMC to develop a new reporting template, which was reviewed by the Standing Committee at its 23rd meeting (Bonn, December 2001) and amended in the light of comments received. The new format was modeled partly on the old requirements prescribed in Resolution 4.1, but tailored also to take into account the key elements of the Strategic Plan for the Convention on Migratory Species (2000-2005).

The noteworthy features of the new format (specimen at Annex 1) are as follows:

- each Party is provided with a standard report template for completion, by answering specific questions in the space provided (often making use of “tick boxes”) and/or by annexing more detailed information;
- some parts of the report are provided to the Party already filled in (for example, general information, details of species thought to occur in the country), so that the recipient need only correct or update the information provided;
- species-related questions are assigned to five main taxonomic groups: birds, marine mammals, marine turtles, terrestrial mammals (other than bats), bats, and other species;
- explicit information is requested on measures taken to protect Appendix I species, which are among the few binding obligations of CMS;
- Parties are invited to append reports submitted in the framework of each CMS Agreement to which they are member (ideally, these reports would be prepared in a similar modular format);
- Parties are invited to provide information as to how they are implementing certain elements of the Strategic Plan, as well as current resolutions and recommendations of the Conference of the Parties.

The Secretariat considers the new format to have several advantages over the old reporting guidelines, among them:

- more detailed information is expected to be provided on actions undertaken in relation to endangered Appendix I species, thus facilitating regular reviews of conservation status for decision-making purposes;
- information will be submitted in a more standardized format, which will facilitate synthesis and comparative analysis over time, across species and among Range States sharing a given species;
- Parties will have an incentive to submit more comprehensive reports, knowing that the information they provide will be integrated into a broader synthesis and made available more widely for constructive purposes;
- the information gathered will be more readily exchanged among interested parties, for instance by making it available on a controlled-access web site;
- review of implementation of the Strategic Plan and of the Convention itself will be greatly enhanced, thanks to the provision of information in a more structured, targeted manner without unnecessary duplication;
- information supplied in accordance with the revised reporting format will serve as an important contribution to broader efforts to harmonize reporting requirements among multilateral environmental agreements.

ANNEX IV: Lessons learned from the IOSEA online reporting system

1. Take it as a given that a major investment of time will be needed on the part of the secretariat in the development and fine-tuning of the system. Even competent software programmers cannot be expected to be aware of the nuances behind individual substantive questions. The secretariat must work closely with the programmer so that he/she understands and appreciates what is being sought, to enable the programmer to devise an appropriate software solution.
2. One cannot emphasize enough the importance of beginning with a solid “offline” reporting template, one that has been tried and tested by the end users. If the template has to be changed significantly during or after programming of the online system, significant delays and cost overruns are inevitable. Even small changes to the ‘paper’ template may have significant conceptual implications for the underlying code.
3. Some of the complexities of the IOSEA system are likely to be encountered in any approach. For example, the second bullet point (above) effectively means that the system has to have two databases and to swap (update) information between them. The programmers of the first generation IOSEA system were unable to achieve this fundamental attribute.
4. Technical details: whereas the first system was developed in PHP, the current generation has been completely reprogrammed in ASP, which apparently has some advantages in terms of quicker processing time (this has proven to be the case). The IOSEA reporting system, developed locally and linked to a website that is housed outside of Bangkok, actually resides with an ISP on the west coast of the United States. (When a user accesses the system from the IOSEA website, he is redirected seamlessly to the US site.) This has worked flawlessly, and may offer some advantages of not putting all of one's eggs in a single basket.
5. Internet access speed is generally not an issue. The system works reasonably well, even with a slow internet connection. The issue in some countries is whether the office has ready access to internet or whether the cost of connection time is prohibitive.
6. A strategically important decision was made to separate the development of the IOSEA website from the ORF. The former was developed by a Bangkok-based company with skills in website development (ie with different skill sets than required to develop a database reporting system) This allowed both development paths to be worked on simultaneously, with limited need for interaction between them.
7. The ORF was developed by a single programmer who was highly motivated by the challenge of developing such a system. This has some advantages, in terms of having hands-on access and control over the process, as well as being more economical – as compared to a working with a company that might employ a team of programmers at far greater expense. The trade-off is in the length of time need to develop the system, and the potential uncertainty of ongoing maintenance (not an issue so far, with the IOSEA system).
8. Outsourcing work on such as system is definitely a viable option since programming can be done anywhere. Costs in Bangkok are reputed to be 1/6 of those in America; but one should not ignore the challenges of working with programmers whose native language is not English, when it comes to explaining the intricacies of how the system is supposed to work, and the bugs that need to be fixed etc
9. Although the system is designed to allow users to update their reports at any time -- not simply in the few weeks before a meeting -- experience from 2005-6 showed that old habits may be hard to break in this regard. A number of SS have still not requested the password to allow them to access the system. Fortunately, their data from the previous year are still available in the system, so that

meaningful synthetic reports can still be compiled even if the information is not completely up to date.

10. The system has a learning curve that not all users are willing to invest in. Users are expected to read the online instructions, and not all of them do. It would be advisable to invest in a hands-on workshop or online tutorial to explain to users how to get the most out of the system.

11. The IOSEA system has a fail-safe, “lowest common denominator” built in for countries that have difficulties working online for whatever reason. Users can always submit their reports in MS-Word and submit them by email. It takes a secretary only about an hour or less to cut and paste the responses to the main report into the electronic template – so that all of the information ends up in the proper electronic database with a minimum investment of time.
